

CLAIMS

Claims

1. (cancelled)
2. (cancelled)
3. (cancelled)
4. (currently amended) A boat drive line having a split ring face seal including;
a split ring face seal of self lubricating fiber material formed from two half rings joined at a polished surface;
a seal face on said split ring face seal said seal face and said split ring face seal having an inside diameter and an outside diameter;
a drive shaft having an outside diameter smaller than the inside diameter of the seal face and passing through the inside diameter of the seal face;
a plurality of raised fiber bearing surfaces integrally-formed on the inside diameter of the split ring face seal;
said plurality of raised fiber bearing surfaces forming a gapped inner most diameter smaller than said inside diameter of said split ring face seal surface but larger than said outside of said drive shaft such that relative movement between said split ring face seal and said drive shaft can cause at least one of said raised fiber bearing surfaces to contact the outside diameter of said drive shaft, and wherein said drive shaft powers a propeller.
5. (original) The boat drive line of claim 4 wherein a rubber thrust boot surrounds said drive shaft and holds said split ring face seal in compression

against a ring fixed to a stern tube and wherein said split ring face seal is rotatable with said drive shaft.

6. (original) The boat drive line of claim 5 wherein said thrust boot is pinned to said split ring face seal.

7. (original) The boat drive line of claim 5 wherein said split ring face seal is formed from a blank of self lubricating fiber material and wherein said seal face is formed on said blank by rotating said blank on a lathe in a clockwise and then in a counter clockwise direction while applying polishing grit to said seal face.

8. (currently amended) A drive line having a split ring face seal including;
a split ring face seal of self lubricating material formed from two half rings joined at ~~atleast~~ at least one polished surface;

a seal face on said split ring face seal, said seal face and said split ring face seal having an inside diameter and an outside diameter;

a rotatable drive shaft having an outside diameter and passing through the inside diameter of the seal face;

a plurality of raised fiber bearing surfaces integrally formed on the inside diameter of the split ring face seal such that relative movement between said split ring face seal and said drive shaft can cause at least one of said raised fiber bearing surfaces to contact the outside diameter of said drive shaft.

9. (original) The drive line of claim 8 wherein said split ring face seal is mounted for rotation with said rotatable drive shaft.

10. (original) The drive line of claim 9 wherein a thrust boot is mounted on said rotatable drive shaft and holds said split ring face seal in sealing engagement with a fixed ring.

11. (original) The drive line of claim 10 wherein said seal face and a face on said fixed ring form a seal holding fluid in a void around said drive shaft.
12. (original) The boat drive line of claim 10 wherein said thrust boot is pinned to said split ring face seal and is compressed between a clamp on said drive shaft and said fixed ring.
13. (original) The boat drive line of claim 12 wherein said split ring face seal is machined from a blank and wherein said seal face is formed on said blank by rotating said blank on a lathe in a clockwise and then in a counter clockwise direction while applying polishing grit to said seal face.
14. (original) The drive line of claim 11 wherein said drive shaft passes through a stern tube and is connected to a propeller.

REMARKS

Claims 1-14 were pending, claims 1-3 have been cancelled.

Examiner objected to the use of the term "atleast" in claim 8. The claim has been amended as suggested by examiner.

Examiner rejected claims 1-3, these have been cancelled.

Examiner indicated claims 4-13 would be allowable. These claims have been represented.

For the reasons listed above, it is felt that all the claims are now in condition for allowance.

Conclusion

It is believed that the above amendments of the claims clarifies the scope of the claims, and at the same time indicates the novelty and inventive step of the claims as amended.

In the event that you wish to discuss any aspect of this response, please contact the agent at the telephone number identified below.

Respectfully submitted,


Steve Brenner

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